

Appl. No. 09/877,374  
Reply to Office action of April 5, 2006

### REMARKS/ARGUMENTS

Claims 1 to 5, 7, 9 to 29, 62 to 68 and 70 to 72 are pending in this application. In accordance with the Examiner's comments, applicant has amended the status identifier of claim 69. The Title has been changed to more clearly present the invention. Applicant believes that this amendment includes no new matter.

The Examiner has rejected claims 1 to 5, 7, 9 to 17, 19 to 29, 62 and 63 under 35 USC 103(a) as being unpatentable over Ditullio et al when taken with Michael et al and claims 64 to 72 under 35 USC 103(a) as being unpatentable over Ditullio et al when taken with Michael et al and further in view of Ling et al. The Examiner states that, a blastodermal cell as taught by Ditullio is one that is formed after the fertilization of the ovum and maturation of the ovum, and that the blastodermal cell would be considered generated from the oviduct, and thus would be considered an oviduct cell. The Examiner cites a rejection at page 6 of the Office action mailed 6/9/05. Applicant traverses the rejection.

Neither an ovum nor a blastodermal cell is generated from the oviduct. The oviduct is a long tube through which the yolk passes as it is packaged into a hard shell egg. The ovum, which may give rise to blastodermal cells, is the female gamete which is released from the ovary and is attached at the surface of the yolk. Applicant has included a copy of Figure 5-1 from Commercial Chicken Meat and Egg Production, 5<sup>th</sup> Edition, Edited by Donald Bell, Kluwer Academic Publishers as Exhibit A. The figure shows the ovary and oviduct of a chicken. Also included above the figure is a brief description of the oviduct which states that the oviduct is a long tube through which the yolk passes and where the remaining portions of the egg are secreted. The remaining portions of the egg which are secreted include components of the egg such as the egg white and the egg shell.

Therefore, applicant submits that the rejections should be withdrawn since an oviduct cell is not a blastodermal cell which as the Examiner contends is disclosed in Ditullio.

The Examiner has rejected claims 1 to 5, 7, 9 to 29, 62 and 63 under 35 USC 103(a) as being unpatentable over Ditullio et al when taken with Mohammed et al. The Examiner states that one would have been sufficiently motivated to use the cells and

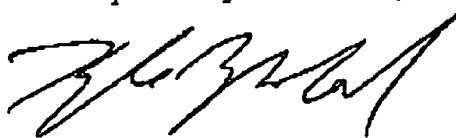
Appl. No. 09/877,374  
Reply to Office action of April 5, 2006

methods taught by Dutillio and modify the methods to express a vector encoding an antibody (see page 7 of the Office action) because cell lines expressing recombinant human antibodies could be used to inject into laying hens, in order to produce transgenic hens which express antibodies in their egg yolk. Applicant traverses the rejection.

As discussed above, an oviduct cell is not a blastodermal cell. Furthermore, an oviduct cell has no apparent use for the production of a transgenic chicken by injection into laying hens. Example 1, at page 71 of the application discusses the production of monoclonal antibodies in cultured quail oviduct cells obtained from the magnum of the oviduct. Cells of the magnum portion of the oviduct are the cells which produce egg white protein and secrete the protein into the oviduct (see pages 65 and 66 from Commercial Chicken Meat and Egg Production, 5<sup>th</sup> Edition, Edited by Donald Bell, Kluwer Academic Publishers, copies included with this response as Exhibit B). Applicant contemplated employing oviduct cells for production and secretion of antibodies, in which he was successful. In particular, applicant has shown oviduct cells (in particular, magnum cells) to be useful for the production of a monoclonal antibody in culture wherein the antibody is produced and then secreted from the cells into the medium.

In conclusion, applicant submits that the claims are not made obvious by the cited references and are allowable and respectfully requests the Examiner to pass the above-identified application to allowance.

Respectfully submitted,



Kyle Yesland  
Attorney for Applicants  
Reg. No. 45,526  
AviGenics, Inc.  
Legal Department  
111 Riverbend Road  
Athens, Georgia 30605